A SUPPLEMENTARY PAPER

UPON

SUPRA-VAGINAL HYSTERECTOMY

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NEW METHOD

WITH

REPORT OF ADDITIONAL CASES

BY

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A SUPPLEMENTARY PAPER UPON SUPRA-VAGINAL HYSTERECTOMY BY THE NEW METHOD, WITH REPORT OF ADDITIONAL CASES.[1]

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Since I had the honor to read before this Society, at its last meeting, a paper upon "Supra-vaginal Hysterectomy Without Ligature of the Cervix in Operation for Uterine Fibroids,"[2] I have operated upon eighteen additional cases by the method there advocated. The results obtained from this increased experience have served to confirm my faith in the value of the operation, and cause me to reiterate the belief then expressed, that this method is the practical as well as the ideal one. In this series of eighteen cases there was one death, which, with the one death in the former series of ten cases, gives a mortality of two in twenty-eight. But as neither of the deaths was due to the method of treating the pedicle (it is shown by the record of the cases that operation would have resulted fatally by any method), I think it may be justly claimed that the mortality of the method has been nil. This result, I think, equals, if it does not exceed, that obtained by any other operation for fibroid tumor; and as it is conceded by the most strenuous advocates of the extra-peritoneal method that a technique which permits of the safe treatment of the pedicle within the pelvis is greatly in advance of that which fixes it in the abdominal wound, it follows that the old method must be abandoned in favor of the new.

But there yet exists a controversy between this new method and total extirpation with its modifications. This still has its advocates, although they are fewer in number, and, I believe, less strongly in favor of it than formerly.

The disadvantages of total extirpation in weakening the pelvic roof, in prolonged operation, and in the greater mutilation which results in shortening of the vagina, are unquestioned; and they cannot be compensated for by the supposed advantage of getting rid of an inch or two of cervical tissue. That this is recognized is shown by the fact that those who first practised total extirpation have modified the original radical method. Eastman, of Indianapolis, who is the father of this operation, in America at least, and Chrobak, of Vienna, whose work is equally commendable, and who is a close follower of Eastman, both now practice a modified form of

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[1] Read before the American Gynæcological Society at Philadelphia, May 16, 1893.

[2] Transactions Amer. Gyn. Soc., vol. xvii., Amer. Jour. Obstet., Oct., 1892.

total extirpation. They now open the vagina through the cervical canal by dilitation, the cautery knife, or some other means, thus destroying the central portion of the cervix, but leaving the vaginal attachments to the shell or outer wall of the organ intact. A glass or gauze drain is next passed through into the vagina, and the cervical tissue which remains is then sutured around and over the drainage-tube or gauze. Chrobak has named this the "Retro-peritoneal Method," and regards it as an improvement over his former method of total removal of the cervix. This technique is still faulty; first, because it opens the vagina and the way for the entrance of septic germs; second, because it destroys the cervical tissue, and thus renders drainage necessary, consequently interfering with primary union; and third, because it is wrong in principle. Drainage in abdominal surgery is a delusion. I have myself abundantly proved this, for of my last two hundred and twenty-seven abdominal sections for all forms of disease of the ovaries and Fallopian tubes, from the simplest non-adherent ovarian cyst to the worst possible form of tubo-ovarian abscess, including hysterectomies for fibroid tumors, I have not used a drainage-tube in 2 per cent. of the cases, and the mortality has been less than 3 per cent. Now, of all abdominal operations, hysterectomy for fibroid tumor is the least likely to require drainage. Of the twenty-six recoveries in this series, drainage was not employed in a single instance, neither from above nor below, and the result proved that it was unnecessary, for there was not any, or only slight, discharge through the cervical canal, and sepsis was absent in every instance.

The technique of Dr. Polk's method, as described by him in his able paper upon "The Entire Removal of the Stump in Supra-pubic Hysterectomy," read before the Society last year, I regard as more scientific, and less apt to be attended with suppuration than either that of Eastman or Chrobak. But as total extirpation was first brought into practice because of the danger from hemorrhage and sloughing, which is always present when the cervix is treated by the old intra-peritoneal method of Schröder, ligating it *en masse*, it also should be abandoned, since we now have a method that is secure against these dangers, and one in which the mortality is not only lower, but which has a simpler and more perfect technique. A method which removes all of the supra-vaginal tissue but does not open the vagina, permits the vaginal portion of the cervix to remain attached and in situ, to maintain its position as the keystone of the arch, and which thereby preserves the strength and anatomical shape of the lower portion of the abdominal cavity, must be superior to entire removal.

There seems to be a misconception regarding some vital points in my method which I desire to correct. There is an impression that I am indifferent as to whether the raw end of the cervix is covered or not. A careful reading of the following quotation from the original paper will show that this is a mistake: "The cervix being now released, it immediately recedes and is drawn deeply into the pelvis by the retractive and

elastic properties of the vagina, where it is buried out of sight by the peritoneal flaps covering it. These flaps have been rendered so taut by the ligatures which have been placed, that usually, as the cervix recedes into the pelvis, they close over it like elastic bands. The cervix is now in its natural position, and *without a ligature or suture in its tissues.* The operation is finished by infolding the edges of the peritoneal flaps, which may be secured by Lembert sutures, if necessary. I have not found this necessary if the ligatures which secured the uterine arteries had also grasped the folds of the broad ligaments, for this so tightens them that the two sides are brought forcibly together when the cervix is drawn under."

Of course, the operator must be guided by circumstances, both in the control of hemorrhage and the number of sutures required to cover the raw surfaces. If for any reason the flaps are not brought forcibly together, and do not remain closely in contact when the cervix is released, I place sutures enough to accomplish this purpose. I do not, however, as a routine practice, whip the edges together with many sutures, first because I have not found it necessary; and secondly, because I believe the less interference by sutures and drainage-tubes the more perfect will be the result. Read, for instance, Case II of the original paper. The tumor, a very large one, was entirely subperitoneal, and had dissected its way between the folds of the broad ligament, and lifted the entire peritoneum upward, carrying, of course, the colon with it. It was necessary to enucleate the entire tumor, and when the large pelvic portion was brought up, a mass of veins was uncovered, and an immense vascular cavity resulted. After ligating the arteries it was necessary to apply many ligatures to the veins, and afterward, in adjusting the peritoneum over the cavity which was made, many sutures were necessary.

A further misconception relates to the management of the cervical canal. In the original will be found these words: "*Nothing whatever is done to the cervical canal.*" To emphasize still further, I would state that the viscid plug of mucus, which Nature has provided for the purpose of preventing the entrance of septic material from the vagina, is not even disturbed. The cervix must be left absolutely alone before, during, and after the operation, if it is healthy. If the cervix is not in a healthy state, the case is not one for operation by this method, and total extirpation should then be the operation of election.

It is these two cardinal features, namely, that the cervix is left *without a ligature or suture in its tissues*, and that *nothing whatever is done to the cervical canal*, which makes this operation differ in principle from any other, and to which, doubtless, is due the rapid recovery of the patients without hemorrhage or sepsis.

I also desire to call attention to the method of Drs. Goffe and Dudley for the purpose of correcting a mistake on their part regarding the principle of my operation. Dr. Dudley, in his discussion at the last meeting, called this operation a modification of the Goffe-Dudley method, whereas

the two methods are totally unlike both in principle and practice. Their operation must be placed in the class of strangulation methods because it encircles the cervix with a ligature, differing only from the method of Schroeder in that the ligature is placed beneath the peritoneal flaps if it is possible to do this. When it is recalled that the principle of my operation is that the cervix shall be left entirely free, it is easy to see that the two operations are totally different. Note also the difference in the post-operative behavior of the cases operated by the two methods. In all of the cases reported by the Goffe-Dudley method there were elevation of the temperature and other evidences that suppuration was taking place, which indeed the operator expected. The patient was then placed in position, and the cervical canal dilated for the purpose of permitting the pus to escape. This I would regard as a dangerous procedure, and the necessity for it should be enough to condemn the method when there is a better way.

To recapitulate: the vital principles in supra-vaginal hysterectomy are first, control of hemorrhage by ligature of the bloodvessels in the broad ligaments; second, non-constriction of the cervical tissues, so that there shall be no cause for suppuration, and third, non-disturbance of the cervical canal, so that sepsis from the vagina may be prevented. We attain the ideal in surgery only when we secure primary union without suppuration.

I believe more than ever in the advisability of early operation in fibroid tumor. To wait for the menopause to cure is to doom the patient to years of unnecessary suffering, and to delay which is often fatal. The menopause does not cure; on the contrary, it seems to stimulate growth in some cases. And even in those rare instances where the tumors do decrease in size, malignant changes often occur. More than one-half of the cases of this series had reached or passed the age of the menopause at the time of the operation, and all of them had urgent symptoms. I will record the following cases as examples:

Case XIII. Multiple fibroid tumor, in which malignant degeneration developed four years after the menopause; hysterectomy. R. B., aged fifty-five years; puberty at thirteen; married; three children, youngest nineteen years; four miscarriages since birth of last child; menopause four years ago.

I first saw this patient on October 1, 1892, when the following history was obtained: About eighteen months previously she began to suffer from attacks of cramp-like pains (uterine colic?) commencing in the afternoon about two o'clock, and continuing through the night, when they would subside, and recur again about the same hour in the afternoon of the next day. The pain increased in severity, and was attended with a slight discharge of blood from the uterus. Morphia in large doses was required to give relief. This periodical feature of the case was one of interesting and puzzling character. During the previous six months she had lost flesh rapidly; she was anæmic, but not cachectic.

Examination showed the cervix uteri normal, but the body of the

uterus was as large as the doubled fist, and nodular; the cavity of the uterus was large, and seemed to contain a growth; there had not been any leucorrhœal discharge of consequence, and there was not any odor. Inquiry brought out a history of profuse bleeding until the menopause.

I expressed the opinion that the uterus was the seat of several fibroid tumors, which were probably undergoing malignant change, although post-menopausal atrophy had taken place. Operation was advised, but the patient strenuously objected, and I did not see her again for six weeks. In the meantime the symptoms had increased, and she was now anxious for surgical interference.

Operation, November 17, 1892. After anæsthesia careful examination was made for the purpose of deciding upon the operative procedure best adapted to the case. The uterus and tumors were found to be too large for vaginal hysterectomy; moreover, the cervix appeared to be entirely healthy. I therefore determined to make the supra-vaginal operation; but as a further means of diagnosis, and for the purpose of disinfecting the uterine cavity, I irrigated and then passed a curette and scraped the surface. While doing this a hemorrhage of such great and sudden quantity occurred as to appear alarming; the blood actually poured out of the cervical canal in a stream. I quickly packed the uterine cavity and the vagina with iodoform-gauze, and immediately proceeded with the cœliotomy. After great difficulty the tumor mass was separated from adhesions and brought up. The broad ligaments were short, making manipulation quite difficult; I, however, succeeded in making deep amputation of the cervix, stitching the peritoneal flaps over the raw surface. The cervical stump appeared to be entirely normal. The patient recovered, and went home just three weeks after the operation.

This is the only instance in which I irrigated and curetted the uterus, or even the cervical canal, by way of preparation for the hysterectomy, and I regard this measure as unnecessary and harmful, as a rule. It certainly was in this case.

Examination of the specimen showed the uterus to contain a number of fibroids, one of which occupied the uterine cavity and had a sessile attachment. It was quite friable, and appeared macroscopically to be undergoing cancerous degeneration. It was the breaking down of this tumor with the curette which had caused the hemorrhage.

Several months ago I was consulted by a woman, sixty-five years of age, who informed me that she had had a tumor before the "change of life," which had occurred at forty-seven years, but that it then diminished in size, and almost disappeared. She had been comparatively well until two years ago. She then began to have a watery, irritating discharge from the vagina, which was later tinged with blood; at times there had been quite a free bleeding. She had not lost flesh, but had become weak and cachectic-looking. She did not suffer much pain, and consulted me on account of the hemorrhage. The cervix uteri was small, but the os was quite patulous; the body of the uterus was large and irregular in shape.

The broad ligaments appeared to be distended by hard nodular masses. I made a diagnosis of malignant degeneration of an old fibroid tumor, and gave an unfavorable prognosis because of broad ligament involvement. She was anxious for operation, however, and I made an exploratory incision, but the pelvic condition was such as not to permit of a successful removal of the disease.

These two cases show that although the menopause may have been reached and safely passed, and the tumor have apparently disappeared, there is still the danger that it may undergo malignant change, because of the low vitality of its tissues.

Such cases as the above, with others that I could relate, have convinced me that the mere removal of the ovaries and tubes for fibroid tumor is an operation which should be abandoned in favor of hysterectomy. The former operation leaves the diseased uterus and tumors, and it as often fails to cure as does the natural menopause. Indeed, I believe that supravaginal hysterectomy should be made in all cases when the ovaries and tubes are being removed for disease of these organs, even if the uterus is only slightly enlarged. The now useless uterine body, with its diseased endometrium, would then be out of the way, and the patient would be saved the months of suffering usually required to bring about involution of the uterus. I have acted upon this reasoning in a number of instances with the happiest results. By the method which I advocate hysterectomy is safer than simple oöphorectomy, and it is more thorough. The following case is introduced as a good example:

Miss R. was sent to me in August, 1891. She was forty-three years of age. Ten years previously she began to suffer from metrorrhagia, with pain; both pain and hemorrhage had increased in severity, and during the last two years she had great pain in the left ovarian region, at times excruciating. She had lost considerable flesh, and presented an anæmic appearance.

Examination showed the uterus to be enlarged and to contain several subperitoneal fibroid tumors the size of an egg, and smaller. To the left of the uterus and posterior to the broad ligament, a mass the size of a duck's egg was found. This mass was firmly fixed, and tender on pressure, and was thought to be an enlarged ovary. The right side was similarly affected, but in a much less degree. Laparotomy was advised, and she entered my private hospital for the purpose.

Operation, September, 1891. A large ovarian hæmatoma on the left, and a smaller one on the right side, were separated from dense adhesions and removed. I did not consider hysterectomy necessary at this time, for having removed the diseased appendages, I hoped the fibroids would disappear.

She made a good recovery, and went home within four weeks. The pain and hemorrhage were absent during the next five months, but she did not regain the lost weight. At this time bleeding began again and she rapidly became more reduced. Examination showed that the fibroid

tumors had continued to grow and now filled the pelvis, extending into the hypogastrium; pain also had returned. The patient was very anxious for a radical operation which might give her relief, and hysterectomy was then performed. She made another good but slow recovery, and remains well.

I have performed oöphorectomy upon many cases in which the result has been finally satisfactory, but what I wish to enforce is, that the patients are not so immediately relieved as where hysterectomy is done instead of simply removing the appendages. The following cases are good illustrations:

Case XIV. Multiple fibroid degeneration of the uterus; hysterectomy. Miss B., aged twenty-eight years, single; puberty at fourteen years. Enjoyed good health until five years ago, when she began to suffer from dysmenorrhœa, congestive in character, and to manifest nervous symptoms. The menstrual flow was scanty and there had not been at any time menorrhagia. The symptoms gradually increased in severity, the dysmenorrhœa becoming ovarian in character. Two years ago she was in a condition of extreme nervous exhaustion. She then underwent a course of treatment and afterward (eighteen months ago) the operation of dilatation of the cervical canal. Her general condition was improved for a time, but the pelvic symptoms grew worse.

I first saw her in October, 1892. She was then quite anæmic in appearance, exceedingly nervous and very anxious about her condition. She complained of severe pelvic distress and throbbing pain in the left ovarian region. She stated that menstruation was very "distressing rather than painful," the flow being slight in quantity. The subjective symptoms seemed to be more general than local, yet the patient, a very intelligent woman, "was sure there was something radically wrong in the genital system."

Examination showed the cervix uteri of normal size, but the os was small. The uterine body was several times larger than the normal, and very hard and nodular. On the left side of the organ there was an egg-sized tumor, which at first appeared to be either the enlarged tube or ovary, being somewhat the shape of the latter; but it was most closely connected with and seemed to be one with the uterus.

Diagnosis. Fibrous degeneration of the uterus with probable disease of the appendages.

The patient had had intelligent medical attendance extending over a period of two years, and all remedies had been exhausted. I, therefore, at the request of the patient and her physician, decided to perform cœliotomy.

Operation, November 19, 1892. The uterus was found to be the seat of numberless fibroid tumors, from the size of a hen's egg down to a pea, giving it a peculiar hob-nailed appearance. The veins of the broad ligaments were greatly distended. The ovaries and tubes were comparatively healthy. It was at once decided that the removal of the appendages in this case would be useless, and that hysterectomy should be made. This

was done by the supra-vaginal method. The patient made an uninterrupted recovery—the temperature at no time reaching 100°.

Examination of the specimen shows it to be one of great interest because of the peculiar nodular character of the uterine growth, and the white, non-vascular condition of the tissues.

Case XV. Multinodular uterine fibroid with deep broad ligament attachment, attended with great hemmorrhage caused by two intra-uterine submucous tumors; hysterectomy.

J. C., aged forty-one years; single; puberty at fourteen. Enjoyed good health until about six years ago, when she began to suffer from menorrhagia. The flow gradually increased in quantity until it became so excessive (about three years ago) that she was compelled to seek advice. At this time she also began to lose flesh, and to show evidence of heart failure, doubtless due to anæmia.

The treatment during the three years before I saw the patient consisted of the usual internal remedies, together with massage and electricity. She continued to grow worse, the loss of blood being "frightful" in quantity. It finally occurred about every two weeks, and continued usually two weeks in decreasing amount. The hemorrhage would begin with a sudden gush, preceded by an expulsive pain. She was in bed two weeks every month. She was brought to me in November, 1892, in an extremely anæmic and emaciated condition.

Examination. The hypogastrium and the lower right side of the abdomen were occupied by a hard, elongated, irregular tumor, which extended from above the umbilicus into the pelvis, where it was connected with other irregular, hard masses. It was mobile above, but fixed below.

Per vaginam, the cervix was found high up toward the left iliac fossa. The lower pelvis was occupied by a multinodular tumor which appeared to be fixed. By combined touch, the pelvic tumor was shown to be connected with the abdominal growths.

Diagnosis. Multiple fibroma of the uterus, with deep broad ligament location. She entered my private hospital.

Operation, December 3, 1892. The upper portion of the tumor was found to be free from adhesions, but the lower right portion was deeply seated within the broad ligament. The upper portion was peculiar in shape—elongated like the shell of a rifle cannon, but quite nodular. This portion of the tumor was readily brought through the incision, but the pelvic portion required enucleation before it could be made to emerge. Considerable difficulty was encountered in placing the ligatures because of the deep location of the tumor. This was finally accomplished, however, and the tumor and uterus removed. One suture served to secure the peritoneal flaps. The patient was convalescent from the beginning, and went home four weeks after the operation.

The specimen is interesting, because it shows the extensive attachment which it sustained to the broad ligament, and how very small the cervix was after the amputation of a tumor which seemed to have a thick

pedicle. The cervical canal at the point of amputation is very small, probably accounting for the tenesmic pain and sudden flow at the onset of each hemorrhage. The cause of the excessive bleeding is also shown in the presence of the two large submucous tumors. The depth of the uterine cavity is four inches, and shows the posterior wall of the uterus to be very thin. The submucous tumors occupy the anterior wall. The cavity is large and the mucous membrane spongy. I think it would be possible to count fifty tumors in the entire mass. The Fallopian tubes were healthy. The right ovary was cystic, and as large as a hen's egg.

Case XX. Multiple uterine fibroid incarcerated in the pelvis; hysterectomy. M. D., aged twenty-eight years; single. She had suffered for several years from symptoms of congestion of the uterus, dysmenorrhœa and menorrhagia. The symptoms had been increasing, and in the fall of last year she was compelled to cease work. In November and December she was very ill with what Dr. Howard, her physician, diagnosticated as pelvic peritonitis, associated with fibroid tumor of the uterus. She slowly recovered from this attack, and soon afterward I saw her. She was emaciated, anæmic, and presented an appearance of great suffering. She was then in the midst of an attack of profuse metrorrhagia. She complained of great pressure upon the bladder and deep in the pelvis. She had pain extending from the sacral region down, along the distribution of the sacral nerves, and this caused extreme lameness at times.

Examination showed the pelvis packed with a hard irregular tumor, which extended into the hypogastrium. The cervix was almost out of reach above the symphysis pubis. The whole mass was immovably fixed.

Diagnosis. Multinodular fibroid tumor of the uterus, incarcerated and fixed in the pelvis by its size and by inflammatory adhesions. I advised operation, and she entered the Polyclinic Hospital.

Operation, February 9, 1893, in the presence of a number of invited guests and the class of the Polyclinic. The upper lobe of the tumor was found closely glued to the surrounding organs, intestines and omentum. After separation of the adhesions, it was made to emerge through the incision. The ovaries and tubes were next dissected from their adhesions, and then the greatest difficulty of all occurred, the delivery of the pelvic tumor. It was so firmly fixed by adhesions, and from its size, that it required great traction, which resembled very much the forceps delivery of an impacted head. Finally, after great effort, in which my heavy volcellum forceps proved its worth, the tumor was brought up, leaving a great hole between the rectum and vagina, which seemed to extend almost to the vaginal orifice. The adhesions to the rectum were so dense that it was remarkable that wounding of the bowel did not result from the necessary manipulation.

A good deal of hemorrhage occurred from lacerated veins, but it soon subsided to sponge pressure. The ligatures were next applied and the cervix amputated. The sponges were then removed, and the abdominal cavity closed without irrigation or drainage.

The patient stood the operation well, and made a very rapid recovery without the slightest symptom, going home seventeen days afterward.

Case XXIII. Multiple fibroid tumor of the uterus, complicated with double tubo-ovarian abscess and septicæmia. G. J., aged twenty-seven years; puberty at fourteen; widow; one child, twelve years old.

This patient was brought into the Polyclinic Hospital in a low, septic condition, and was said to be suffering from ischio-rectal abscess. She had been very ill for several months; her temperature ranged from 101° to 103° in the evening, and she had rigors and sweating. Pulse 130–150. She was placed in the care of Dr. Adler, who examined her under ether, and determined that she had a deep-seated pelvic abscess (not ischio-rectal) and transferred her to my service.

Examination revealed a semi-fluctuating mass directly within the vaginal orifice, and apparently between the vagina and the rectum. The swelling extended into the post-uterine region. The cervix uteri occupied a position high up behind the symphysis of the pubis. The post-uterine pelvic space was filled with irregular, semi-fluctuating tumors. The hypogastrium was distended, and palpation revealed several hard tumors, which seemed to be connected with the uterus. Everything was firmly fixed. The patient's condition scarcely warranted operative interference, but there did not appear to be any hope for improvement. To add to the unfavorable outlook, she was said to be a chronic inebriate.

Operation, April 19, 1893. Cœliotomy revealed about the worst possible condition. The uterus and several fibroid tumors, with the bladder drawn up over them, were found directly under the incision. The omentum and intestines were surrounding and adhering to large ovarian and tubal abscesses which occupied the entire pelvic cavity. The tissues looked almost gangrenous, and there was some loose semi-purulent fluid in the spaces between the tumors. I found a point of cleavage, and at once began separating adhesions. Deep down in the left side of the pelvis, between the rectum and the vagina, and under the sigmoid flexure, I found the left appendages surrounded by and containing a large quantity of fetid pus. The sac had ruptured. After the loose pus was washed out, the abscess sac—tube and ovary—was brought up and removed. Irrigation was continued until the water returned clear. I now began searching for the right appendages, which I believed to be involved in or to constitute the recto-vaginal tumor. After continuing the dissection, scarcely knowing which was tumor and which was bowel, I opened into an abscess cavity, and more fetid pus was emptied into the pelvis. This abscess was found to be so deeply located that the lining membrane only was removed. I then proceeded to complete the operation by removal of the uterus and fibroid tumors by the supra-vaginal method.

After further irrigation the abdomen was closed without drainage, the operation having lasted an hour and a half. I felt convinced that this case would result fatally, but, thanks to the untiring efforts and intelligent care of Dr. Erck, the Resident in charge, she made an excellent recovery.

To simply remove the appendages in cases such as these is to invite defeat.

They also teach the lesson that operation whilst the tumors and patient are both in good condition would save much suffering and danger to life, as well as serious labor for the surgeon.

Case XXVIII. Large sub-peritoneal sessile fibroid tumor of the uterus, complicated with chronic parenchymatous nephritis; hysterectomy; death from suppression of urine in thirty hours.

H. R., aged forty-eight years; puberty at thirteen; married twenty-four years; one child, twenty-three years old; labor normal. Menses had always been regular, lasting from four to six days, until about a year ago; since then had been less regular, and flow less in quantity.

Twelve years ago she first discovered a "lump" in the hypogastrium. This "lump" grew rapidly, and within a year the abdomen was as large as at the full term of gestation. Her family physician at first thought she might be pregnant, and watched the case closely until after the ninth month, when he pronounced the growth a tumor. She was advised by several physicians whom she consulted to wait for the menopause. She took medicine regularly for six years, but without benefit. During the last six months the tumor had been growing constantly. She also suffered from frequent attacks of severe pain in the lumbar region, supposed to be the result of "kidney trouble." On several occasions she had been confined to bed a number of weeks in consequence of these attacks. She voided urine quite frequently, but only in small quantity. It was of high color and strong odor.

During the past year she had been losing flesh and strength, and had become quite nervous; was compelled to lie down much of the day, and slept a good deal.

Examination. The abdomen was distended to the size of the full term of gestation. Palpation revealed a semi-solid, obscurely fluctuating smooth mass as large as the uterus at full term. It occupied a position quite high up in the abdomen, was bi-lobed and mobile above, but fixed below. The cervix was far back and above the superior strait; it could not be easily reached by the finger.

Diagnosis. Fibroid tumor of the utterus, probably undergoing malignant degeneration.

Operation, April 25, 1893. An incision of four inches exposed the tumor. It was very vascular and friable looking. Its upper portion was free from adhesions, but below it had a broad attachment. The incision was then extended, and after great effort the tumor was lifted from its bed in the abdominal cavity. It was now seen that the major portion of the tumor was located within the folds of the left broad ligament. The uterus was with difficulty located; it was quite small, and occupied a position on the surface of the posterior and right side of the growth. The tumor had grown from the left anterior surface of the uterus, expanding the folds of the broad ligament, having a sessile attachment. The veins of the broad

ligament were as large as the thumb, giving a dark and formidable appearance to the field of operation.

The operation was concluded with difficulty, but it was not unduly prolonged, considering its character; however, the patient showed evidence of shock, although hemorrhage had been slight and principally venous. The peritoneum was stitched carefully over the stump of the cervix, and the opened broad ligament closed with many sutures.

An hour after the operation the patient seemed to be comatose. It was difficult to arouse her. Stimulants were administered, but without effect, and four hours afterward the breath had a urinous odor. A catheter was passed, and the bladder found empty.

I now realized that the coma was due to uræmia from suppression of urine. Remedies were used with the hope of restoring the action of the kidneys, but the patient continued to grow worse, and died thirty hours after the operation. The odor of the breath had become almost like that of urine.

Post-mortem. The pedicle was found in good condition. There was not the slightest evidence of inflammation about it or in the abdominal cavity. Examination of the kidneys explained the cause of death. They were hypertrophied to about three times their normal size, and apparently in a waxy condition. The ureters were traced to their entrance into the bladder, and were found free from injury. One of the kidneys was sent to Prof. John Guiteras, whose report follows:

"The kidney presents the lesions of chronic parenchymatous inflammation, together with a desquamation of epithelium from the convoluted tubules, and a proliferation of the remaining cells, which must indicate an acute exacerbation of abrupt termination."

The death in this case was undoubtedly due to the kidney lesion, which in turn was probably due to long pressure from the tumor. Of course, the operation hastened the inevitable termination.

The result speaks with telling force against delay in operation and the teaching that the menopause influences these cases in atrophy of the tumor.

[NOTE.—Since the reading of this paper I have operated upon eighteen other cases by this method. They all recovered without event.]

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